CHAPTER 16

INTEGRITY ALL ULTREX DOUBLE HUNG

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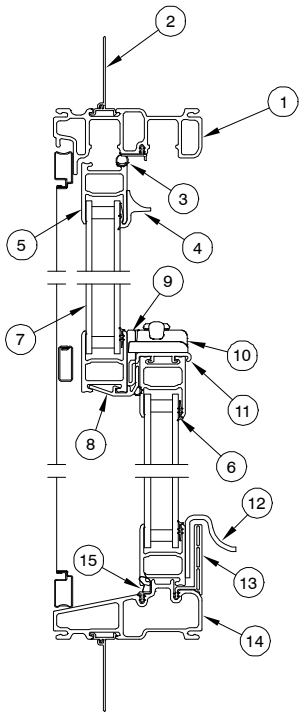
ATTENTION:

- Specification and technical data are subject to change without notice.
- Numbers listed in parentheses ( ) are metric equivalents in millimeters rounded to the nearest whole number.

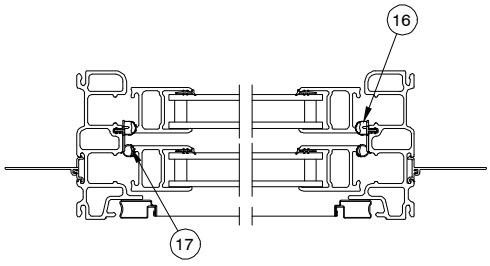
PRODUCED	UNIT TYPE	FEATURES OR CHANGES	DISCONTINUED
March 2007	Double Hung	Unit features 3/4″ double strength insulating Low E II w/argon. GBGs are available in White, Pebble Gray and Bronze. 2″ jambs with a 4 9/16″ and 6 9/16″ extensions. Available with factory applied sheet rock return and field applied J–channel. White interior only with white hardware. Pebble Gray, Stone White and Bronze Ultrex exteriors.	Present
November 2007	Double Hung	Evergreen exteriors added. V1143 and V1152 frame weather strip changed from gray to beige. V1472 leveling block changed to V1562.	Present
March 2008	Double Hung	Cashmere exteriors introduced March 17, 2008.	Present
October 2008	Double Hung	CN28 introduced.	Present
March 2009	Double Hung	Ebony exteriors introduced.	Present
May 2009	Double Hung	LoÉ^3 366™ glass option introduced.	Present
February 2010	Double Hung	Introduced new hardware finishes: Oil Rubbed Bronze (ORBZ), Satin Nickel PVD (SN) and Brass PVD (BS)	Present
August 2011	Double Hung	Sill weather strip V1992 replaced with V2099.	Present
April 2012 Option	Double Hung	4/30/12 IFDH and IFSH are now available with the unequal sash option.	Present
October 2012	Double Hung	October 29, 2012: Introduced All Ultrex Expanded Sizes and Mulls.	Present
August 2013	Double Hung	August 26, 2013: Added new cam lock and keeper and forced entry clip.	Present
October 2013	Double Hung	October 28, 2013: Discontinued the optional vent stop option for limiting sash travel and venting. Added Window Opening Control Device (WOCD); offers sash limits and venting option. Bottom sash tilt latch was slightly modified and works on all units manufactured from 9–2006 to present.	Present

DOUBLE HUNG
OPERATOR



Head Jamb and Sill Detail

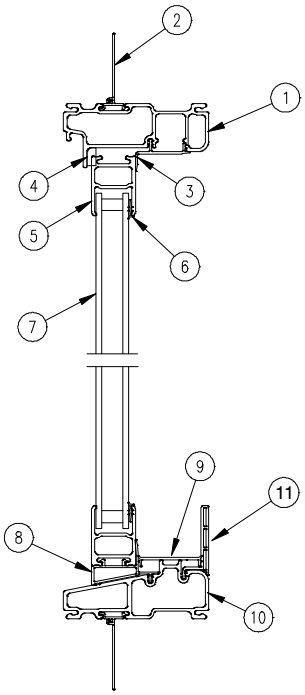
1. Frame
2. Nailing Fin
3. Head Jamb Weather Strip
4. Sash Pull
5. Sash
6. Vinyl Glazing Boot
7. Insulated Glass
8. Sash Cover – Top
9. Sash Keeper
10. Sash Lock
11. Sash Cover – Bottom
12. Sash Lift
13. Sill Liner
14. Sill
15. Sill Weather Strip
16. Bottom Jamb Weather Strip
17. Top Jamb Weather Strip



Jamb Detail

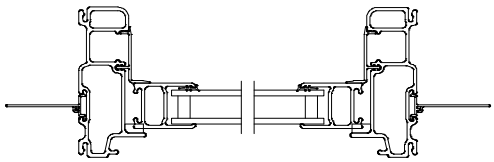
NOTE: Not to scale; specifications subject to change without notice.

STATIONARY – PICTURE



Head Jamb and Sill Detail

1. Frame
2. Nailing Fin
3. Head Jamb/Jamb Stop
4. Foam Tape
5. Sash
6. Vinyl Glazing Boot
7. Insulated Glass
8. Leveling Block
9. Sill Filler
10. Sill
11. Sill Liner



Jamb Detail

NOTE: Not to scale; specifications subject to change without notice.

When ordering replacement Integrity Double Hung hardware specify:

1. Type of unit;
2. Part number;
3. Description

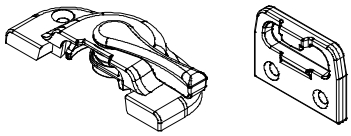
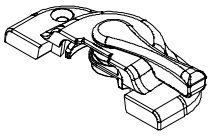
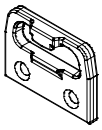
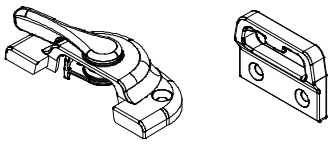
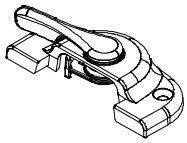
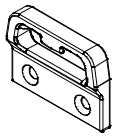
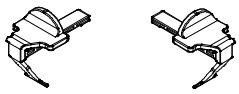
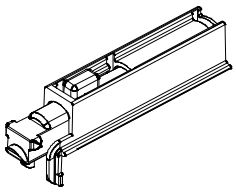
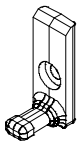
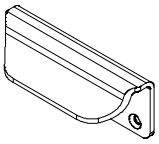
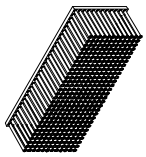
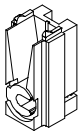
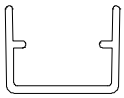
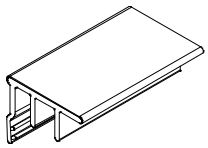
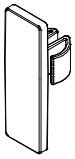
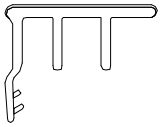
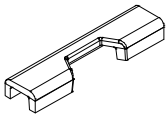
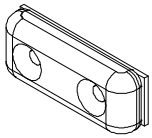
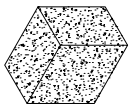
ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	OPER./COLOR	PART NO.
	**Sash Lock and Keeper** *Usage: August 26, 2013 – present* *includes:* *1 – Lock* *1 – Keeper* *4 – #6 x 7/8″ Phillips flat head screws*	SW LH AF LH BS LH SN LH ORBZ LH	11800922 11800924 11800926 11800928 11800930
	**Sash Lock** *Usage: August 26, 2013 – present* includes fasteners: *2 – #6 x 7/8″ Phillips flat head screws*	SW LH AF LH BS LH SN LH ORBZ LH	10824022 10824024 10824026 10824028 10824030
	**Sash Keeper** *Usage: August 26, 2013 – present* includes fasteners: *2 – #6 x 7/8″ Phillips flat head screws*	SW AF BS SN ORBZ	10819040 10819080 10819050 10819060 10819070
	**Sash Cam Lock and Keeper** *Usage: November 2006 – August 26, 2013.* *includes:* *1 – Cam lock* *1 – Keeper* *4 – #6 x 7/8″ Phillips flat head screws*	SW AF BS SN ORBZ	11850117 11850144 11850146 11850148 11850151
	**Sash Cam Lock** *Usage: November 2006 – August 26, 2013.* *includes:* *1 – Cam lock* *2 – #6 x 7/8″ Phillips flat head screws*	SW AF BS SN ORBZ	10814031 10814033 10814035 10814037 10814039
	**Sash Keeper** *Usage: November 2006 – August 26, 2013.* *includes:* *1 – Keeper* *2 – #6 x 7/8″ Phillips flat head screws*	SW AF BS SN ORBZ	10817050 10817065 10817066 10817067 10817068
 NOTE: 1 kit per lock	**Non–operable Cam Lock Kit** *includes:* *1 – Sash cam lock limiter* *1 – #6 x 1 1/4″ Torx pan head screws* *1 – Warning label* *1 – Instruction*	SW AF BS SN ORBZ	11880480 11880481 11880482 11880483 11880484

ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	OPER./COLOR	PART NO.
 RH LH	**Bottom Sash Tilt Latch** *Includes:* *1–Tilt latch*	LH/WH RH/WH	11860077 11860076
	**Top Sash Tilt Latch** *Includes:* *1–Tilt latch*	WH	11860295
	**Tilt Pin** *Includes:* *1 – Tilt pin* *1 – #8 x 5/8″ Phillips pan head screw*		10815279
	**Sash Lift** *Includes:* *1 – Lift* *2 – #6 x 7/8″ Phillips self–drilling flat head screws*	WH	11867807

When ordering replacement Integrity Double Hung parts specify:

1. Type of unit;
2. Part number;
3. Description.

ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	OPER./COLOR	PART NO.
	**Check Rail Dust Block** 1/4″ x 1 3/8″ adhesive fabric backed	GY	10500049
	**Balance Tube Clutch**	Non–handed BG	105530
	**Top Sash Stop – Equal Sash Units** *V1172*	WH	161900
	Top Sash Stop – Cottage Units *V1172*	WH 84″ (2134)	161894
	**Bottom Sash Stop** V2204 *Usage: August 26, 2013 to present*	WH	11802200
	**Bottom Sash Stop** *Usage: 4/2006 to August 26, 2013*	WH	11860800
	**Reverse Cottage Bottom Sash Stop** *V2204* Lineal	WH 144″ (3658)	11802204
	**Forced Entry Clip** *Usage: August 26, 2013 – present.*		11860289
	Operating Sash Peg	WH	11860294
	**Sash Limiter Kit** *includes:* *4 – Limiter* *8 – #8–18 x 5/8″PH, FH, SS* *2– #6 x 1/2″ Torx head screws* *1 – Warning label* *1 – Instruction*	WH	11880180
	**Balance Tube Foam Plug** *Usage: August 26, 2013 to present* 3/4″ x 3/4″ x 1/2″	WH	10500104

When ordering replacement Integrity Double Hung weather strip and vinyl parts specify:

1. Description;
2. Standard or custom size;
3. Profile number;
4. Equal sash, cottage, or reverse cottage unit;
5. Part number;
6. Length of part.
7. Quantity.

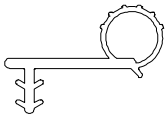
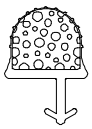
ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	LENGTH	PART NO.
	**Frame Weather Strip – Head Jamb** V1573		
		SW	
	CN16	15 1/2″ (394)	15900816
	CN20	21 1/2″ (546)	15900820
	CN26	27 1/2″ (698)	15900826
	CN28	29 1/2″ (749)	15900828
	CN30	33 1/2″ (851)	15900830
	CN36	39 1/2″ (1003)	15900836
	CN40	45 1/2″ (1156)	15900840
	Frame Weather Strip – Top Jamb V1573		
	Equal Sash	**SW**	
	CN20	11 5/32″ (283)	15900511
	CN26	14 5/32″ (360)	15900514
	CN30	17 5/32″ (436)	15900517
	CN36	20 5/32″ (512)	15900520
	CN40	23 5/32″ (588)	15900523
	CN46	26 5/32″ (664)	15900526
	CN50	29 5/32″ (741)	15900529
	CN56	32 5/32″ (817)	15900532
	CN60	35 5/32″ (893)	15900535
	CN66	38 5/32″ (969)	15900538
	Lineal	96″ (2438)	15900596
	**Frame Weather Strip – Bottom Jamb** V1143 *Usage: BG used 11/2007 – present*		
	Equal Sash	**BG**	
	CN20	10 7/16″ (265)	15906610
	CN26	13 7/16″ (341)	15906613
	CN30	16 7/16″ (418)	15906616
	CN36	19 7/16″ (494)	15906619
	CN40	22 7/16″ (570)	15906622
	CN46	25 7/16″ (646)	15906625
	CN50	28 7/16″ (722)	15906628
	CN56	31 7/16″ (799)	15906631
	CN60	34 7/16″ (875)	15906634
	CN66	37 7/16″ (951)	15906637
	Lineal	96″ (2438)	15906699

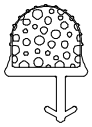
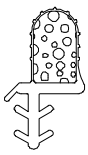
ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	LENGTH	PART NO.
 *Usage: GY (Obsolete) used 3/2007–11/2007*	**Frame Weather Strip – Bottom Jamb** V1143 *NOTE: GY used 3/2007–11/2007*	**GY**	
	CN20	10 7/16″ (265)	15900610
	CN26	13 7/16″ (341)	15900613
	CN30	16 7/16″ (418)	15900616
	CN36	19 7/16″ (494)	15900619
	CN40	22 7/16″ (570)	15900622
	CN46	25 7/16″ (646)	15900625
	CN50	28 7/16″ (722)	15900628
	CN56	31 7/16″ (799)	15900631
	CN60	34 7/16″ (875)	15900634
	CN66/CN56C	37 7/16″ (951)	15900637
	Lineal	96″ (2438)	15900699
	Sill Weather Strip V2099 *Usage: 08/29/2011–present*	BG	
	CN16	15 1/4″ (387)	17001116
	CN20	21 1/4″ (540)	17001120
	CN26	27 1/4″ (692)	17001126
	CN28	29 1/4″ (743)	17001128
	CN30	33 1/4″ (845)	17001130
	CN36	39 1/4″ (997)	17001136
	CN40	45 1/4″ (1149)	17001140
	Lineal	96″ (2438)	17011199
	Sill Weather Strip V1992 *Usage: 02/22/2010 – 08/29/2011*	Discontinued replace with V2099	
	**Frame Weather Strip – Sill** V1452 *Usage: BG used 11/2007 – 02/22/2010*	**BG**	
	CN16	15 1/4″ (387)	17333318
	CN20	21 1/4″ (540)	17333324
	CN26	27 1/4″ (692)	17333330
	CN28	29 1/4″ (743)	17333333
	CN30	33 1/4″ (845)	17333336
	CN36	39 1/4″ (997)	17333342
	CN40	45 1/4″ (1149)	17333348
	Lineal	96″ (2438)	17333396
	Frame Weather Strip – Sill V1452 *NOTE: GY used 3/2007–11/2007*	**GY**	
	CN16	15 1/4″ (387)	17000318
	CN20	21 1/4″ (540)	17000324
	CN26	27 1/4″ (692)	17000330
	CN30	33 1/4″ (845)	17000336
	CN36	39 1/4″ (997)	17000342
	CN40	45 1/4″ (1149)	17000348
	Lineal	96″ (2438)	17000396

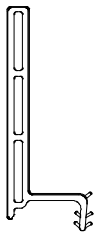
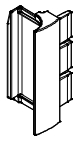
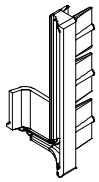
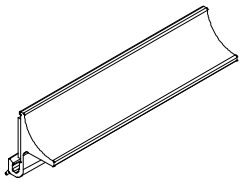
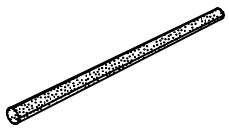
ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	LENGTH	PART NO.
	**Sill Liner** V1552 *NOTE: For units produced before 9/24/07 replace sill liner seal as well.* *Usage: 9/24/07 – present*	**SW**	
		CN16	15 15/64″ (387)	31511216
		CN20	21 15/64″ (539)	31511220
		CN26	27 15/64″ (692)	31511226
		CN28	29 15/64″ (743)	31511228
		CN30	33 15/64″ (844)	31511230
		CN36	39 15/64″ (997)	31511236
		CN40	45 15/64″ (1149)	31511240
		CN50	57 15/64″ (1454)	31511250
		CN60	69 15/64″ (1759)	31511260
		Lineal	96″ (2438)	31511296
 *NOTE: RH Shown*	**Sill Liner Seal** *Usage: 9/24/07 – present*	LH RH	10500291 10500290
 *NOTE: RH Shown*	**Sill Liner Seal** *NOTE: No longer available. Replace with current version. Will have to replace sill liner and/or sill filler.* *Usage: 4/2006–9/2007*	LH RH	No Longer Available
	**Sash Pull** *Includes:* *1 – Adhesive back tape*	**SW**	
		CN16	12 5/8″ (321)	15900416
		CN20	18 5/8″ (473)	15900420
		CN26	24 5/8″ (625)	15900426
		CN28	26 5/8″ (676)	15900428
		CN30	30 5/8″ (778)	15900430
		CN36	36 5/8″ (930)	15900436
		CN40	42 5/8″ (1083)	15900440
	**Foam Rope** V1244 – 7/32″ (6) diameter	50′ (15240)	15910050

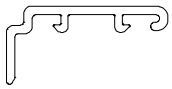
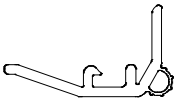
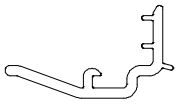
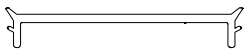
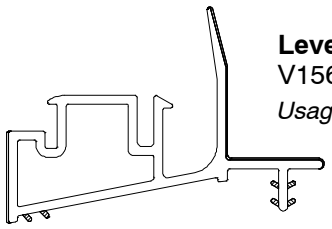
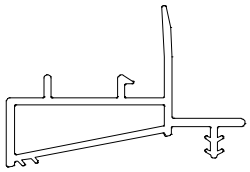
ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	LENGTH	PART NO.
	**Sash Cover – Bottom Single Lock** V1509	**SW**	
	CN16	15 1/4″ (387)	17043718
	CN20	21 1/4″ (540)	17043724
	CN26	27 1/4″ (692)	17043730
	Sash Cover – Bottom Double Lock V1509	**SW**	
	CN28	29 1/4″ (743)	17043833
	CN30	33 1/4″ (845)	17043836
	CN36	39 1/4″ (997)	17043842
	CN40	45 1/4″ (1149)	17043848
	**Sash Cover – Top** V1749	**SW**	
	CN16	15 1/4″ (387)	17005916
	CN20	21 1/4″ (540)	17005920
	CN26	27 1/4″ (692)	17005926
	CN28	29 1/4″ (743)	17005928
	CN30	33 1/4″ (845)	17005930
	CN36	39 1/4″ (997)	17005936
	CN40	45 1/4″ (1149)	17005940
	**Sash Cover – Top** V1510 *Usage: March 2007 to July 2008.*	Discontinued – Replace with V1749	
	**Sill Filler – Picture/Transom** V1557	**SW**	
	CN16	15 7/16″ (392)	10007216
	CN20	21 7/16″ (545)	10007220
	CN26	27 7/16″ (697)	10007226
	CN28	29 7/16″ (748)	10007228
	CN30	33 7/16″ (849)	10007230
	CN36	39 7/16″ (1002)	10007236
	CN40	45 7/16″ (1154)	10007240
	CN50	57 7/16″ (1459)	10007250
	CN60	69 7/16″ (1764)	10007260
	Lineal	144″ (3658)	10007299

ILLUSTRATION AND DESCRIPTION
ILLUSTRATION NOT TO SCALE



Leveling Block
V1562
Usage: 10/2007 to present.

Call Number	Length	Color / Part No.					
		SW/SW	**PB/SW**	**BZ/SW**	**EG/SW**	**CS/SW**	**EB/SW**
16	15 3/16″ (386)	11004116	11005116	11006116	11003116	11007116	11008116
20	21 3/16″ (538)	11004120	11005120	11006120	11003120	11007120	11008120
26	27 3/16″ (691)	11004126	11005126	11006126	11003126	11007126	11008126
28	29 3/16″ (742)	11004128	11005128	11006128	11003128	11007128	11008128
30	33 3/16″ (843)	11004130	11005130	11006130	11003130	11007130	11008130
36	39 3/16″ (985)	11004136	11005136	11006136	11003136	11007136	11008136
40	45 3/16″ (1148)	11004140	11005140	11006140	11003140	11007140	11008140
50	57 3/16″ (1453)	11004150	11005150	11006150	11003150	11007150	11008150
Lineal	96″ (2438)	11004199	11005199	11006199	11003199	11007199	11008199



Leveling Block
V1472
Usage: 4/2006 – 10/2007

Call Number	Length	Color / Part No.		
		SW	**PB**	**BZ**
CN16	15 3/16″ (386)	11007216	11007217	11007316
CN20	21 3/16″ (538)	11007220	11007221	11007320
CN26	27 3/16″ (691)	11007226	11007227	11007326
CN30	33 3/16″ (843)	11007230	11007231	11007330
CN36	39 3/16″ (985)	11007236	11007237	11007336
CN40	45 3/16″ (1148)	11007240	11007241	11007340
CN50	57 3/16″ (1453)	11007250	11007251	11007350
Lineal	96″ (2438)	11007296	11007297	11007396

Sash ordering information provide:

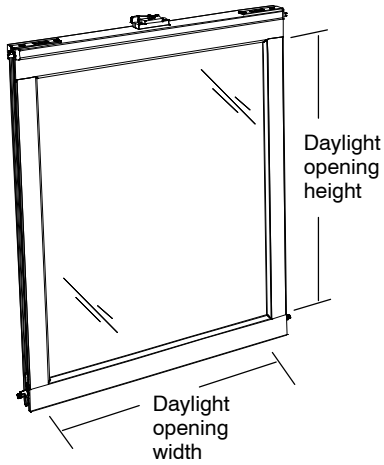
1. Which sash is being replaced – top and bottom
2. Equal Sash, Cottage, or Reverse Cottage Units
3. Size – provide the corresponding call number, rough opening, frame size, or outside measurement
4. Glazing
5. Color – Hardware option and original order number if available
   Whether or not the original sash was made before or after 3/26/07.
6. If unit has an opening control device, state this on the order.

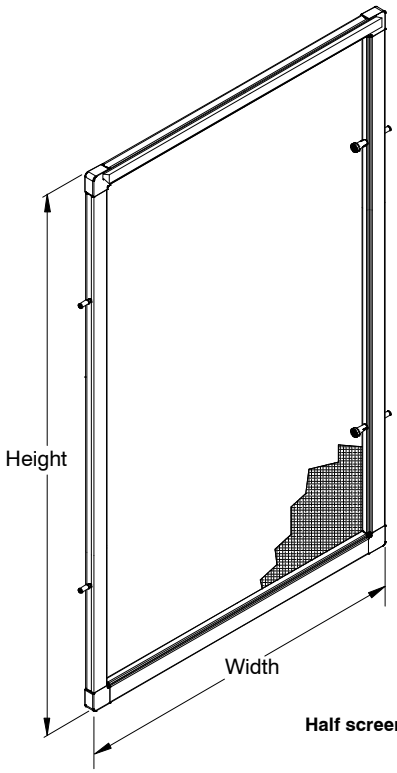
Screen ordering information provide:

1. Size – provide the corresponding call number, rough opening, frame size, or outside measurement
2. Color
3. Half or full screen
4. Equal Sash, Cottage, or Reverse Cottage units and original order number if available

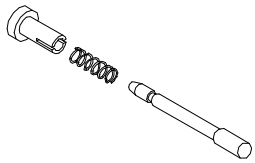
NOTE: Use the sash, frame and DLO charts to help determine sash and screen sizes.
Original order number can be found etched into corner of glass or on label adhered to side of sash frame.

NOTE: OM of screen includes corner keys.





Half screen shown

ILLUSTRATION *NOT TO SCALE*	DESCRIPTION	OPER./ COLOR	PART NO.
	**Plunger and Spring Assembly** M060 *Includes:* *1 – Plunger bolt* *1 – Plunger bolt cap* *1 – Plunger bolt spring*	Clear Cap Off White Bolt	11900896

EQUAL SASH UNITS

Use this chart to determine sizes for replacement parts, sash and screen.

- Daylight Opening (DLO) is a measurement of the visible glass.
- Outside measurement = OM
- Sizes for Double Hung manufactured 3/26/2007 to present.

OPERATOR SASH – EQUAL SASH UNITS					
WIDTH					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
16	17 1/2″ (445)	15 1/4″ (387)	15 23/32″ (401)	15 23/32″ (401)	12 9/16″ (319)
20	23 1/2″ (597)	21 1/4″ (540)	21 23/32″ (553)	21 23/32″ (553)	18 9/16″ (471)
26	29 1/2″ (749)	27 1/4″ (692)	27 23/32″ (629)	27 23/32″ (629)	24 9/16″ (624)
28	31 1/2″ (800)	29 1/4″ (743)	29 23/32″ (736)	29 23/32″ (736)	26 9/16″ (675)
30	35 1/2″ (902)	33 1/4″ (845)	33 23/32″ (706)	33 23/32″ (706)	30 9/16″ (776)
36	41 1/2″ (1054)	39 1/4″ (997)	39 23/32″ (1010)	39 23/32″ (1010)	36 9/16″ (929)
40	47 1/2″ (1207)	45 1/4″ (1149)	45 23/32″ (1163)	45 23/32″ (1163)	42 9/16″ (1081)
HEIGHT					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
20	23 1/2″ (597)	11″ (279)	11 1/8″ (283)	21 15/16″ (557)	8 5/16″ (211)
26	29 1/2″ (749)	14″ (356)	14 1/8″ (359)	27 15/16″ (710)	11 5/16″ (287)
30	35 1/2″ (851)	17″ (432)	17 1/8″ (435)	33 15/16″ (862)	14 5/16″ (364)
36	41 1/2″ (1054)	20″ (508)	20 1/8″ (511)	39 15/16″ (1014)	17 5/16″ (440)
40	47 1/2″ (1207)	23″ (584)	23 1/8″ (587)	45 15/16″ (1167)	20 5/16″ (516)
46	53 1/2″ (1359)	26″ (660)	26 1/8″ (664)	51 15/16″ (1319)	23 5/16″ (592)
50	59 1/2″ (1511)	29″ (737)	29 1/8″ (740)	57 15/16″ (1472)	26 5/16″ (668)
56	65 1/2″ (1664)	32″ (813)	32 1/8″ (816)	63 15/16″ (1624)	29 5/16″ (745)
60	71 1/2″ (1816)	35″ (889)	35 1/8″ (892)	69 15/16″ (1776)	32 5/16″ (821)
66	77 1/2″ (1969)	38″ (965)	38 1/8″ (994)	75 15/16″ (1929)	35 5/16″ (897)

PICTURE/TRANSOM SASH			
WIDTH			
Unit CN	**Frame OM**	**Sash OM**	**DLO**
16	17 1/2″ (445)	15 1/4″ (387)	12 9/16″ (319)
20	23 1/2″ (597)	21 1/4″ (540)	18 9/16″ (471)
26	29 1/2″ (749)	27 1/4″ (692)	24 9/16″ (624)
28	31 1/2″ (800)	29 1/4″ (743)	26 9/16″ (675)
30	35 1/2″ (902)	33 1/4″ (845)	30 9/16″ (776)
36	41 1/2″ (1054)	39 1/4″ (997)	36 9/16″ (929)
40	47 1/2″ (1207)	45 1/4″ (1149)	42 9/16″ (1081)
50	59 1/2″ (1511)	57 1/4″ (1454)	54 9/16″ (1386)
60	71 1/2″ (1816)	69 1/4″ (1759)	66 9/16″ (1691)
HEIGHT			
Unit CN	**Frame OM**	**Sash OM**	**DLO**
10	11 1/2″ (292)	9 1/4″ (235)	6 9/16″ (167)
16	17 1/2″ (445)	15 1/4″ (387)	12 9/16″ (319)
20	23 1/2″ (597)	21 1/4″ (540)	18 9/16″ (471)
26	29 1/2″ (749)	27 1/4″ (692)	24 9/16″ (624)
30	35 1/2″ (902)	33 1/4″ (845)	30 9/16″ (776)
36	41 1/2″ (1054)	39 1/4″ (997)	36 9/16″ (929)
40	47 1/2″ (1207)	45 1/4″ (1149)	42 9/16″ (1081)
46	53 1/2″ (1359)	51 1/4″ (1302)	48 9/16″ (1233)
50	59 1/2″ (1511)	57 1/4″ (1454)	54 9/16″ (1386)
56	65 1/2″ (1664)	63 1/4″ (1607)	60 9/16″ (1538)
60	71 1/2″ (1816)	69 1/4″ (1759)	66 9/16″ (1961)
66	77 1/2″ (1969)	75 1/4″ (1911)	72 9/16″ (1843)

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Top or bottom sash.
4. Sash ratio; (equal, cottage, or reverse cottage)
   (STC/OITC glass upgrade or not STC/OITC glass upgrade)

NOTE: Standard or special size units can reference the same supplier Ref ID part number. Additional tube sizes may be found on the special size chart found in AU DH chapter.

NOTE: The chart below was updated February 10, 2012. Please reference this information when ordering all replacement tubes. The Supplier Reference ID may differ from your original tube marking.

TOP SASH (Mill)		
Unit CN	Supplier Ref ID	Part Number
1620	10A	107010
1626	12A	107012
1630	14A	107014
1636	18A	107018
1640	20A	107020
1646	24A	107024
1650	26B	107126
1656	30A	107030
1660	32A	107032
1666	36A	107036
2020	10B	107110
2026	12B	107112
2030	14B	107114
2036	18B	107118
2040	20B	107120
2046	24B	107124
2050	26B	107126
2056	30B	107130
2060	32B	107132
2066	36B	107136
2620	10B	107110
2626	12C	107212
2630	14C	107214
2636	18C	107218
2640	20C	107220
2646	24C	107224
2650	26C	107226
2656	30C	107230
2660	32C	107232
2666	36C	107236
2820	10B	107110
2826	12C	107212
2830	14C	107214
2836	18C	107218
2840	20C	107220
2846	24C	107224
2850	26C	107226
2856	30C	107230
2860	32C	107232
2866	36C	107236

TOP SASH (Mill)		
Unit CN	Supplier Ref ID	Part Number
3020	10C	107210
3026	12C	107212
3030	14C	107214
3036	19C	107219
3040	20D	107320
3046	24C	107224
3050	26D	107326
3056	30D	107330
3060	32D	107332
3066	36D	107336
3620	10C	107210
3626	12C	107212
3630	14D	107314
3636	18D	107318
3640	20E	107420
3646	24D	107324
3650	26E	107426
3656	30E	107430
3660	32E	107432
3666	36F	107536
4020	10D	107310
4026	12D	107312
4030	14D	107314
4036	18E	107418
4040	20E	107420
4046	24F	107524
4050	26F	107526
4056	30F	107530
4060	32G	107632
4066	36H	107736

BOTTOM SASH (WH)		
Unit CN	Supplier Ref ID	Part Number
1620	10A	106010
1626	13A	106013
1630	16A	106016
1636	19A	106019
1640	22A	106022
1646	25A	106025
1650	28A	106028
1656	31A	106031
1660	34A	106034
1666	37A	106037
2020	10A	106010
2026	13A	106013
2030	16B	106116
2036	19A	106019
2040	22A	106022
2046	25A	106025
2050	28A	106028
2056	31A	106031
2060	34A	106034
2066	37A	106037
2620	10B	106110
2626	13B	106113
2630	16B	106116
2636	19B	106119
2640	22B	106122
2646	25B	106125
2650	29B	106129
2656	31B	106131
2660	34B	106134
2666	37B	106137
2820	10B	106110
2826	13B	106113
2830	16C	106216
2836	19B	106119
2840	22B	106122
2846	25B	106125
2850	28B	106128
2856	31B	106131
2860	34B	106134
2866	37C	106237

BOTTOM SASH (WH)		
Unit CN	Supplier Ref ID	Part Number
3020	10B	106010
3026	13B	106113
3030	16C	106216
3036	19C	106219
3040	22B	106122
3046	25B	106125
3050	28C	106228
3056	31C	106231
3060	34C	106234
3066	37C	106237
3620	10B	106010
3626	13C	106213
3630	16C	106216
3636	19C	106219
3640	22C	106222
3646	25C	106225
3650	28C	106228
3656	31D	106331
3660	34D	106334
3666	37D	106337
4020	10C	106210
4026	13C	106213
4030	16D	106316
4036	19D	106319
4040	22D	106322
4046	25E	106425
4050	28D	106328
4056	31E	106431
4060	34E	106434
4066	37F	106537

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: STC/OITC glass is made of 3.1 & 4.7 glass – all other glass is made of 3.1 glass on both panes

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number. Additional tube sizes may be found on the Special Size Chart found on the appropriate page.

TOP SASH		
Unit CN	Supplier Ref ID	Part Number
1620	10A	107010
1626	11B	106111
1630	14B	107114
1636	17B	106117
1640	20B	107120
1646	23B	106123
1650	26B	107126
1656	29B	106129
1660	32B	107132
1666	35B	106135
2020	10B	107110
2026	11B	106111
2030	14C	107214
2036	17C	106217
2040	20C	107220
2046	23C	106223
2050	26C	107226
2056	29C	106229
2060	32C	107232
2066	35C	106235
2620	10B	107110
2626	11C	106211
2630	14C	107214
2636	17D	106317
2640	20D	107320
2646	23D	106323
2650	26D	107326
2656	29D	106329
2660	32D	107332
2666	35D	106335
2820	10C	107210
2826	11C	106211
2830	14C	107214
2836	17D	106317
2840	20D	107320
2846	23D	106323
2850	26D	107326
2856	29D	106329
2860	32E	107432
2866	35E	106435

TOP SASH		
Unit CN	Supplier Ref ID	Part Number
3020	10C	106210
3026	11C	106211
3030	14D	107314
3036	17E	106417
3040	20E	107420
3046	23E	106423
3050	26E	107426
3056	29E	106429
3060	32E	107432
3066	35F	106535
3620	10D	106310
3626	11D	106311
3630	14E	107414
3636	17F	106517
3640	20F	107520
3646	23F	106523
3650	26F	107526
3656	29G	106629
3660	32G	107632
3666	35I	106835
4020	10D	106310
4026	11E U/L	106411
4030	14F	106514
4036	17G	106617
4040	20G	106620
4046	23H	106723
4050	26H	106726
4056	29H	106729
4060	32J U/L*	106932
4066	35K U/L*	108035

BOTTOM SASH		
Unit CN	Supplier Ref ID	Part Number
1620	10A	106010
1626	13A	106013
1630	16A	106016
1636	19A	106019
1640	22A	106022
1646	25A	106025
1650	28A	106028
1656	31A	106031
1660	34A	106034
1666	37A	106037
2020	10B	106110
2026	13B	106113
2030	16B	106116
2036	19B	106119
2040	22B	106122
2046	25B	106125
2050	28B	106128
2056	31B	106131
2060	34B	106134
2066	37B	106137
2620	10B	106110
2626	13B	106113
2630	16C	106216
2636	19C	106219
2640	22B	106122
2646	25B	106125
2650	28C	106228
2656	31C	106231
2660	34C	106234
2666	37C	106237
2820	10B	106110
2826	13C	106213
2830	16C	106216
2836	19C	106219
2840	22C	106222
2846	25C	106225
2850	28C	106228
2856	31C	106231
2860	34C	106234
2866	37C	106237

BOTTOM SASH		
Unit CN	Supplier Ref ID	Part Number
3020	10B	106110
3026	13C	106213
3030	16C	106216
3036	19C	106219
3040	22C	106222
3046	25C	106225
3050	28D	106328
3056	31D	106331
3060	34D	106334
3066	37D	106337
3620	10C	106210
3626	13C	106213
3630	16D	106316
3636	19D	106319
3640	22D	106322
3646	25E	106425
3650	28E	106428
3656	31E	106431
3660	34F	106534
3666	37G	106637
4020	10D	106310
4026	13D	106313
4030	16E	106416
4036	19E	106419
4040	22E	106422
4046	25G	106625
4050	28F	106528
4056	31G	106631
4060	34H	106734
4066	37I	106837

* U/L designates a limited travel balance tube

COTTAGE UNITS

Use this chart to determine sizes for replacement parts, sash and screen.

- Daylight Opening (DLO) is a measurement of the visible glass.
- Outside measurement = OM
- Sizes for Double Hung manufactured 3/26/2007 to present.

OPERATOR SASH – COTTAGE UNITS					
WIDTH					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
16	17 1/2" (445)	15 1/4" (387)	15 23/32" (401)	15 23/32" (401)	12 9/16" (319)
20	23 1/2" (597)	21 1/4" (540)	21 23/32" (553)	21 23/32" (553)	18 9/16" (471)
26	29 1/2" (749)	27 1/4" (692)	27 23/32" (629)	27 23/32" (629)	24 9/16" (624)
28	31 1/2" (800)	29 1/4" (743)	29 23/32" (706)	29 23/32" (706)	26 9/16" (675)
30	35 1/2" (902)	33 1/4" (845)	33 23/32" (736)	33 23/32" (736)	30 9/16" (776)
36	41 1/2" (1054)	39 1/4" (997)	39 23/32" (1010)	39 23/32" (1010)	36 9/16" (929)
40	47 1/2" (1207)	45 1/4" (1149)	45 23/32" (1163)	45 23/32" (1163)	42 9/16" (1081)
HEIGHT					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
26 (top)	29 1/2" (749)	11 17/32" (293)	–	27 15/16" (710)	8 13/16" (224)
26 (btm)	29 1/2" (749)	16 15/32" (419)	16 19/32" (422)	27 15/16" (710)	13 25/32" (350)
30 (top)	35 1/2" (851)	13 29/32" (354)	–	33 15/16" (862)	11 7/32" (285)
30 (btm)	35 1/2" (851)	20 3/32" (510)	20 7/32" (513)	33 15/16" (862)	17 13/32" (442)
36 (top)	41 1/2" (1054)	16 5/16" (415)	–	39 15/16" (1014)	13 5/8" (346)
36 (btm)	41 1/2" (1054)	23 11/16" (602)	23 13/16" (605)	39 15/16" (1014)	21" (533)
40 (top)	47 1/2" (1207)	18 23/32" (475)	–	45 15/16" (1167)	16 1/32" (407)
40 (btm)	47 1/2" (1207)	27 9/32" (693)	27 13/32" (696)	45 15/16" (1167)	24 19/32" (625)
46 (top)	53 1/2" (1359)	21 1/8" (536)	–	51 15/16" (1319)	18 7/16" (468)
46 (btm)	53 1/2" (1359)	30 7/8" (785)	31" (788)	51 15/16" (1319)	28 3/16" (716)
50 (top)	59 1/2" (1511)	23 17/32" (597)	–	57 15/16" (1472)	20 13/16" (529)
50 (btm)	59 1/2" (1511)	34 15/32" (876)	34 19/32" (879)	57 15/16" (1472)	31 25/32" (808)
56 (top)	65 1/2" (1664)	26" (660)	–	63 15/16" (1624)	23 5/16" (592)
56 (btm)	65 1/2" (1664)	38" (965)	38 1/8" (969)	63 15/16" (1624)	35 5/16" (897)

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Top or bottom sash.
4. Sash ratio; (equal, cottage, or reverse cottage)
5. STC/OITC glass upgrade or not STC/OITC glass upgrade

NOTE: *Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number. Additional tube sizes may be found on the Special Size Chart found on the appropriate page.*

TOP SASH (Mill) – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	10A	107010
1630	12A	107012
1636	14B	107114
1640	16B	107116
1646	18A	107018
1650	22A	107022
1656	24A	107024
2026	10B	107110
2030	12B	107112
2036	14B	107114
2040	16C	107216
2046	18B	107118
2050	22B	107122
2056	24B	107124
2626	10B	107110
2630	12C	107212
2636	14C	107214
2640	16C	107216
2646	18C	107218
2650	22C	107222
2656	24C	107224
2826	10B	107110
2830	12C	107212
2836	14C	107214
2840	16C	107216
2846	18C	107218
2850	22C	107222
2856	24C	107224

TOP SASH (Mill) – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	10C	107210
3030	12C	107212
3036	14C	107214
3040	16C	107216
3046	18C	107218
3050	22C	107222
3056	24C	107224
3626	10C	107210
3630	12C	107212
3636	14D	107214
3640	16D	107316
3646	18D	107318
3650	22D	107322
3656	24E	107424
4026	10D	107310
4030	12D	107312
4036	14D	107314
4040	16E	107416
4046	18E	107418
4050	22E	107422
4056	24F	107524

BOTTOM SASH (WH) – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	15A	106015
1630	19A	106019
1636	22A	106022
1640	26A	106026
1646	30A	106030
1650	33A	106033
1656	37A	106031
2026	15A	106015
2030	19A	106019
2036	22A	106022
2040	26A	106026
2046	30A	106030
2050	33A	106033
2056	37A	106037
2626	15B	106115
2630	19B	106119
2636	22B	106122
2640	26B	106126
2646	30B	106130
2650	33B	106133
2656	37B	106137
2826	15C	106215
2830	19B	106119
2836	22B	106122
2840	26B	106126
2846	30B	106130
2850	33B	106133
2856	37B	106137

BOTTOM SASH (WH) – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	15C	106215
3030	19C	106219
3036	22B	106122
3040	26C	106226
3046	30C	106230
3050	33C	106233
3056	37C	106237
3626	15C	106215
3630	19C	106219
3636	22C	106222
3640	26C	106226
3646	30D	106330
3650	33D	106333
3656	37D	106337
4026	15C	106215
4030	19D	106319
4036	22D	106322
4040	26E	106426
4046	30E	106430
4050	33E	106433
4056	37F	106537

* U/L designates a limited travel balance tube

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: STC/OITC glass is made of 3.1 & 4.7 glass – all other glass is made of 3.1 glass on both panes

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number. Additional tube sizes may be found on the Special Size Chart found on the appropriate page.

TOP SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	10B	107110
1630	11B	106111
1636	14B	107114
1640	16B	107116
1646	18B	107118
1650	21B	106121
1656	23B	106123
2026	10B	107110
2030	11B	106111
2036	14C	107214
2040	16C	107216
2046	18C	107218
2050	21C	106221
2056	23C	106223
2626	10C	107210
2630	11C	106211
2636	14C	107214
2640	16C	107216
2646	18C	107218
2650	21D	106321
2656	23D	106323
2826	10C	107210
2830	11C	106211
2836	14C	107214
2840	16D	107316
2846	18D	107318
2850	21D	106321
2856	23D	106323

TOP SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	10C	107210
3030	11C	106211
3036	14D	107314
3040	16D	107316
3046	18E	107418
3050	21E	106421
3056	23E	106423
3626	10D	107310
3630	11D	106311
3636	14E	107414
3640	16F	107516
3646	18F	107518
3650	21F	106521
3656	23F	106523
4026	10E	106410
4030	11E U/L*	106411
4036	14F	106514
4040	16G	106616
4046	18G U/L*	106618
4050	21G	106621
4056	23H	106723

BOTTOM SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	15A	106015
1630	19A	106019
1636	22A	106022
1640	26A	106026
1646	30A	106030
1650	33A	106033
1656	37A	106037
2026	15B	106115
2030	19B	106119
2036	22B	106122
2040	26B	106126
2046	30B	106130
2050	33B	106133
2056	37B	106137
2626	15C	106215
2630	19C	106219
2636	22B	106122
2640	26C	106226
2646	30C	106230
2650	33C	106233
2656	37C	106237
2826	15C	106215
2830	19C	106219
2836	22C	106222
2840	26C	106226
2846	30C	106230
2850	33C	106233
2856	37C	106237

BOTTOM SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	15C	106215
3030	19C	106219
3036	22C	106222
3040	26D	106326
3046	30D	106330
3050	33D	106333
3056	37D	106337
3626	15D	106315
3630	19D	106319
3636	22D	106322
3640	26E	106426
3646	30E	106430
3650	33F	106533
3656	37G	106637
4026	15E	106415
4030	19E	106419
4036	22E	106422
4040	26F	106526
4046	30F	106530
4050	33H	106733
4056	37I	106837

* U/L designates a limited travel balance tube

REVERSE COTTAGE UNITS

Use this chart to determine sizes for replacement parts, sash and screen.

- Daylight Opening (DLO) is a measurement of the visible glass.
- Outside measurement = OM
- Sizes for Double Hung manufactured 3/26/2007 to present.

OPERATOR SASH – REVERSE COTTAGE UNITS					
WIDTH					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
16	17 1/2" (445)	15 1/4" (387)	15 23/32" (401)	15 23/32" (401)	12 9/16" (319)
20	23 1/2" (597)	21 1/4" (540)	21 23/32" (553)	21 23/32" (553)	18 9/16" (471)
26	29 1/2" (749)	27 1/4" (692)	27 23/32" (629)	27 23/32" (629)	24 9/16" (624)
28	31 1/2" (800)	29 1/4" (743)	29 23/32" (706)	29 23/32" (706)	26 9/16" (675)
30	35 1/2" (902)	33 1/4" (845)	33 23/32" (736)	33 23/32" (736)	30 9/16" (776)
36	41 1/2" (1054)	39 1/4" (997)	39 23/32" (1010)	39 23/32" (1010)	36 9/16" (929)
40	47 1/2" (1207)	45 1/4" (1149)	45 23/32" (1163)	45 23/32" (1163)	42 9/16" (1081)
HEIGHT					
Unit CN	**Frame OM**	**Sash OM**	**1/2 Screen OM**	**Full Screen OM**	**DLO**
26 (top)	29 1/2" (749)	16 15/32" (419)	–	27 15/16" (710)	13 25/32" (350)
26 (btm)	29 1/2" (749)	11 17/32" (293)	11 21/32" (296)	27 15/16" (710)	8 13/16" (224)
30 (top)	35 1/2" (851)	20 3/32" (510)	–	33 15/16" (862)	17 13/32" (442)
30 (btm)	35 1/2" (851)	13 29/32" (354)	14 1/32" (357)	33 15/16" (862)	11 7/32" (285)
36 (top)	41 1/2" (1054)	23 11/16" (602)	–	39 15/16" (1014)	21" (533)
36 (btm)	41 1/2" (1054)	16 5/16" (415)	16 7/16" (418)	39 15/16" (1014)	13 5/8" (346)
40 (top)	47 1/2" (1207)	27 9/32" (693)	–	45 15/16" (1167)	24 19/32" (625)
40 (btm)	47 1/2" (1207)	18 23/32" (475)	18 27/32" (479)	45 15/16" (1167)	16 1/32" (407)
46 (top)	53 1/2" (1359)	30 7/8" (785)	–	51 15/16" (1319)	28 3/16" (716)
46 (btm)	53 1/2" (1359)	21 1/8" (536)	21 1/4" (540)	51 15/16" (1319)	18 7/16" (468)
50 (top)	59 1/2" (1511)	34 15/32" (876)	–	57 15/16" (1472)	31 25/32" (808)
50 (btm)	59 1/2" (1511)	23 17/32" (597)	23 21/32" (601)	57 15/16" (1472)	20 13/16" (529)
56 (top)	66 1/2" (1664)	38" (965)	–	63 15/16" (1624)	35 5/16" (897)
56 (btm)	65 1/2" (1664)	26" (660)	26 1/8" (664)	63 15/16" (1624)	23 15/16" (592)

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: STC/OITC glass is made of 3.1 & 4.7 glass – all other glass is made of 3.1 glass on both panes

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number. Additional tube sizes may be found on the Special Size Chart found on the appropriate page.

TOP SASH (Mill) – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	14B	107114
1630	18A	107018
1636	22A	107022
1640	26A	107026
1646	28B	107128
1650	32A	107032
1656	36A	107036
2026	14B	107114
2030	18B	107118
2036	22B	107122
2040	26B	107126
2046	28B	107128
2050	32B	107132
2056	36B	107136
2626	14C	107214
2630	18C	107218
2636	22C	107222
2640	26C	107226
2646	28C	107228
2650	32C	107232
2656	36C	107236
2826	14C	107214
2830	18C	107218
2836	22C	107222
2840	26C	107226
2846	28C	107228
2850	32C	107232
2856	36D	107336

TOP SASH (Mill) – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	14C	107214
3030	18C	107218
3036	22C	107222
3040	26D	107326
3046	28D	107328
3050	32D	107332
3056	36D	107336
3626	14D	107314
3630	18D	107318
3636	22D	107322
3640	26E	107426
3646	28E	107428
3650	32E	107432
3656	36F	107536
4026	14D	107314
4030	18E	107418
4036	22E	107422
4040	26E	107426
4046	28F	107528
4050	32G	107632
4056	36H	107736

BOTTOM SASH (WH) – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	15A	106015
1630	19A	106019
1636	22A	106022
1640	26A	106026
1646	30A	106030
1650	33A	106033
1656	37A	106037
2026	15A	106015
2030	19A	106019
2036	22A	106022
2040	26A	106026
2046	30A	106030
2050	33A	106033
2056	37A	106037
2626	15A	106015
2630	19A	106019
2636	22A	106022
2640	26A	106026
2646	30A	106030
2650	33A	106033
2656	37A	106037
2826	15B	106115
2830	19A	106019
2836	22A	106022
2840	26B	106126
2846	30A	106030
2850	33A	106033
2856	37A	106037

BOTTOM SASH (WH) – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	15B	106115
3030	19B	106119
3036	22B	106122
3040	26B	106126
3046	30B	106130
3050	33B	106133
3056	37B	106137
3626	15C	106215
3630	19B	106119
3636	22B	106122
3640	26B	106126
3646	30B	106130
3650	33B	106133
3656	37B	106137
4026	15C	106215
4030	19C	106219
4036	22B	106122
4040	26C	106226
4046	30C	106230
4050	33C	106233
4056	37C	106237

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: STC/OITC glass is made of 3.1 & 4.7 glass – all other glass is made of 3.1 glass on both panes

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number. Additional tube sizes may be found on the Special Size Chart found on the appropriate page.

TOP SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	14B	107114
1630	17B	106117
1636	21B	106121
1640	25B	106125
1646	28B	107128
1650	32B	107132
1656	35B	106135
2026	14C	107214
2030	17C	106217
2036	21C	106221
2040	25C	106225
2046	28C	107228
2050	32C	107232
2056	35C	106235
2626	14C	107214
2630	17D	106317
2636	21D	106321
2640	25D	106325
2646	28D	107328
2650	32D	107332
2656	35D	106335
2826	14C	107214
2830	17D	106317
2836	21D	106321
2840	25D	106325
2846	28D	107328
2850	32D	107332
2856	35E	106435

TOP SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	14D	107314
3030	17E	106417
3036	21E	106421
3040	25E	106425
3046	28E	107428
3050	32E	107432
3056	35F	106535
3626	14E	107414
3630	17F	106517
3636	21F	106521
3640	25G	106625
3646	28F	107528
3650	32G	107632
3656	35I	106835
4026	14F	106514
4030	17G	106617
4036	21G	106621
4040	25H	106725
4046	28H	106728
4050	32J U/L*	106932
4056	35K U/L*	108035

BOTTOM SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
1626	15A	106015
1630	19A	106019
1636	22A	106022
1640	26A	106026
1646	30A	106030
1650	33A	106033
1656	37A	106037
2026	15A	106015
2030	19A	106019
2036	22A	106022
2040	26A	106026
2046	30A	106030
2050	33A	106033
2056	37A	106037
2626	15B	106115
2630	19B	106119
2636	22B	106122
2640	26B	106126
2646	30B	106130
2650	33B	106133
2656	37B	106137
2826	15B	106115
2830	19B	106119
2836	22B	106122
2840	26B	106126
2846	30B	106130
2850	33B	106133
2856	37B	106137

BOTTOM SASH – Cottage		
Unit CN	Supplier Ref ID	Part Number
3026	15C	106215
3030	19B	106119
3036	22B	106122
3040	26B	106126
3046	30B	106130
3050	33B	106133
3056	37B	106137
3626	15C	106215
3630	19C	106219
3636	22C	106222
3640	26C	106226
3646	30C	106230
3650	33C	106233
3656	37C	106237
4026	15C	106215
4030	19C	106219
4036	22C	106222
4040	26C	106226
4046	30D	106330
4050	33D	106333
4056	37D	106337

* U/L designates a limited travel balance tube

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number.

MILL	
Supplier Ref ID	Part Number
10A	107010
10B	107110
10C	107210
10D	107310
12A	107012
12B	107112
12C	107212
12D	107312
14A	107014
14B	107114
14C	107214
14D	107314
14E	107414

MILL	
Supplier Ref ID	Part Number
16A	107016
16B	107116
16C	107216
16D	107316
16E	107416
16F	107516
18A	107018
18B	107118
18C	107218
18D	107318
18E	107418
18F	107518
20A	107020
20B	107120
20C	107220
20D	107320
20E	107420
20F	107520

MILL	
Supplier Ref ID	Part Number
22A	107022
22B	107122
22C	107222
22D	107322
22E	107422
22F	107522
24A	107024
24B	107124
24C	107224
24D	107324
24E	107424
24F	107524
24G	107624
26A	107026
26B	107126
26C	107226
26D	107326
26E	107426
26F	107526

MILL	
Supplier Ref ID	Part Number
28A	107028
28B	107128
28C	107228
28D	107328
28E	107428
28F	107528
30A	107030
30B	107130
30C	107230
30D	107330
30E	107430
30F	107530
30G	107630
32A	107032
32B	107132
32C	107232
32D	107332
32E	107432
32F	107532
32G	107632

MILL	
Supplier Ref ID	Part Number
34A	107034
34B	107134
34C	107234
34D	107334
34E	107434
34F	107534
34G	107634
34H	107734
36A	107036
36B	107136
36C	107236
36D	107336
36E	107436
36F	107536
36G	107636
36H	107736
36I	107836

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: *Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number.*

WHITE	
Supplier Ref ID	**Part Number**
10A	106010
10B	106110
10C	106210
10D	106310
10E	106410
11A	106011
11B	106111
11C	106211
11D	106311
11E U/L*	106411
12A	106012
12B	106112
12C	106212
12D	106312
12E U/L*	106412
13A	106013
13B	106113
13C	106213
13D	106313
13E	106413
13F U/L*	106513
14A	106014
14B	106114
14C	106214
14D	106314
14E	106414
14F	106514

WHITE	
Supplier Ref ID	**Part Number**
15A	106015
15B	106115
15C	106215
15D	106315
15E	106415
15F	106515
15G	106615
16A	106016
16B	106116
16C	106216
16D	106316
16E	106416
16F	106516
16G	106616
17A	106017
17B	106117
17C	106217
17D	106317
17E	106417
17F	106517
17G	106617
18A	106018
18B	106118
18C	106218
18D	106318
18E	106418
18F	106518
18G U/L*	106618

WHITE	
Supplier Ref ID	**Part Number**
19A	106019
19B	106119
19C	106219
19D	106319
19E	106419
19F	106519
19G	106619
19H U/L*	106719
20A	106020
20B	106120
20C	106220
20D	106320
20E	106420
20F	106520
20G	106620
21A	106021
21B	106121
21C	106221
21D	106321
21E	106421
21F	106521
21G	106621

WHITE	
Supplier Ref ID	**Part Number**
22A	106022
22B	106122
22C	106222
22D	106322
22E	106422
22F	106522
22G	106622
23A	106023
23B	106123
23C	106223
23D	106323
23E	106423
23F	106523
23G	106623
23H	106723
24A	106024
24B	106124
24C	106224
24D	106324
24E	106424
24F	106524
24G	106624
24H	106724

WHITE	
Supplier Ref ID	**Part Number**
25A	106025
25B	106125
25C	106225
25D	106325
25E	106425
25F	106525
25G	106625
25H	106725
25I U/L*	106825
26A	106026
26B	106126
26C	106226
26D	106326
26E	106426
26F	106526
26G	106626
26H	106726
27A	106027
27B	106127
27C	106227
27D	106327
27E	106427
27F	106527
27G	106627
27H	106727

* U/L designates a limited travel balance tube

BALANCE TUBES

When ordering replacement parts specify:

1. Part number;
2. Quantity; (*Part numbers listed are for one balance tube only*)
3. Sash ratio; (equal, cottage, or reverse cottage)
4. STC/OITC glass upgrade or not STC/OITC glass upgrade.

NOTE: Units with the STC/OITC glass upgrade could have white balance tubes for both top and bottom sash depending on the unit size. Please reference this information when ordering all replacement tubes. Standard or special size units can reference the same Supplier Ref ID and part number.

WHITE	
Supplier Ref ID	Part Number
28A	106028
28B	106128
28C	106228
28D	106328
28E	106428
28F	106528
28G	106628
28H	106728
29A	106029
29B	106129
29C	106229
29D	106329
29E	106429
29F	106529
29G	106629
29H	106729

WHITE	
Supplier Ref ID	Part Number
30A	106030
30B	106130
30C	106230
30D	106330
30E	106430
30F	106530
30G	106630
30H	106730
30I U/L*	106830
31A	106031
31B	106131
31C	106231
31D	106331
31E	106431
31F	106531
31G	106631
31H	106731
31I U/L*	106831
31J U/L*	106931

WHITE	
Supplier Ref ID	Part Number
32A	106032
32B	106132
32C	106232
32D	106332
32E	106432
32F	106532
32G	106632
32H	106732
32I U/L*	106832
32J U/L*	106932
33A	106033
33B	106133
33C	106233
33D	106333
33E	106433
33F	106533
33G	106633
33H	106733
33I	109833
33J U/L*	109933

WHITE	
Supplier Ref ID	Part Number
34A	106034
34B	106134
34C	106234
34D	106334
34E	106434
34F	106534
34G	106634
34H	106734
34I	106834
34J U/L*	106934
34K U/L*	109034
35A	106035
35B	106135
35C	106235
35D	106335
35E	106435
35F	106535
35G	106635
35H	106735
35I	106835
35J U/L*	109935
35K U/L*	108035

WHITE	
Supplier Ref ID	Part Number
36A	106036
36B	106136
36C	106236
36D	106336
36E	106436
36F	106536
36G	106636
36H	106736
36I	106836
37A	106037
37B	106137
37C	106237
37D	106337
37E	106437
37F	106537
37G	106637
37H	106737
37I	106837

* U/L designates a limited travel balance tube

BALANCE TUBE AND CLUTCH ASSEMBLY REPLACEMENT

WARNING: Practice Safety! Always wear proper safety equipment, including safety glasses.

YOU WILL NEED TO SUPPLY

Safety glasses
Rubber mallet
Pry bar
Balance tube remover
Balance tube channel
Spreader
Standard screwdriver
Tape measure
Pencil
Locking pliers for clutch assembly replacement (not shown)

Balance Tube Replacement

1. Remove both sash.
2. Mark both clutch locations in the balance tube channels (only on the side where balance tube will be replaced) as shown in figure 1.

Figure 1

NOTE: If clutch is disconnected, it will be necessary to measure the clutch height from the opposite jamb and transfer height measurement to affected jamb.

3. Release clutches on both balance tubes. Using a standard screwdriver, rotate the balance clutch cam to the released position. Hold the tool firmly and slide the clutch assembly up to the bottom of the balance tube. See figure 2.

Figure 2

4. Place the spreader tool in the channel 1–2″ (25–51) below affected balance tube clutch assembly (narrow sides of tool placed vertically in channel). See figure 3.

Figure 3

5. Turn the tool 90 degrees to spread the channel. With the channel spread, insert the hooked end of the remover tool behind the clutch assembly. Pull the assembly out from the channel. See figure 4. Slide the balance tube to release the balance tube hook from the jamb hole.

Figure 4

6. Work your way up the balance tube spreading the channel as you go and pulling the balance tube from the channel. See figure 5 and 6. Once the balance tube has been removed, discard but leave the channel spreader in place.

Figure 5

Figure 6

BALANCE TUBE AND CLUTCH ASSEMBLY REPLACEMENT

7. Keeping the top of the balance tube channel spread, place the new balance tube in the balance tube cavity, lining the hanger hook up with the jamb hole. See figures 7 and 8.

Figure 7

Figure 8

8. Working top to bottom, press the balance tube into the cavity, spreading the channel as you go until the entire balance tube is in place. See figures 9 and 10.

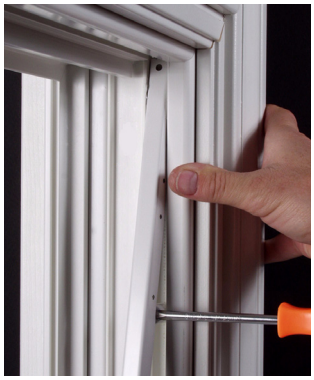


Figure 9

Figure 10

9. Once the balance tube is in place, press the clutch assembly into the channel as shown. See figure 11.

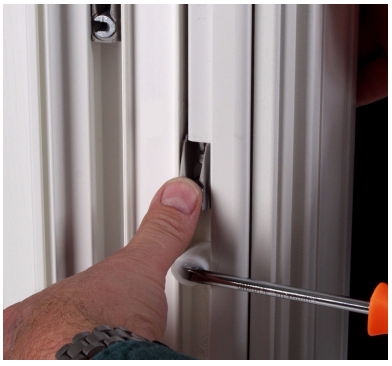


Figure 11

10. Push the balance tube up in the channel. Using the remover tool, pull down and push in on the balance tube to ensure that the hook has engaged properly in the jamb hole. See figure 12. Remove the spreader tool.

Figure 12

11. Replace the top balance tube plug.
12. Slide the weather strip carrier into position at the head jamb and snap into place. Then, push the sill end into place on top of sill foam gasket and work your way toward the middle. See figures 13 and 14.

Figure 13

Figure 14

13. Using a standard screwdriver, pull both clutches down to the mark made earlier, turning the cams 90 degrees to the locked position. See figures 15 and 16.

Figure 15

Figure 16

14. Replace the sash and check operation.

Clutch Assembly Replacement

1. Follow steps 1–5 of the previous Balance Tube Replacement section.

NOTE: It is not necessary to remove the top balance tube plug or the entire balance tube from cavity.

2. With the clutch assembly removed from the balance tube channel, pull on the assembly until approximately 6″ (152) of cord is showing. Using a locking pliers or similar tool, clamp off the cord at the bottom of the balance tube. Push the cord out toward the back of the clutch assembly to reveal knot. Untie the knot or cut the cord just above the knot if necessary and discard the damaged clutch assembly. See figure 17.

Figure 17

NOTE: Before using the locking pliers or similar tool, it is advised to tape off or file down the teeth on the tool to avoid fraying the cord.

IMPORTANT: Untying the knot is a preferred method to remove the clutch assembly. However if this is not possible and cutting is necessary, be sure to melt the end of the cord to avoid fraying.

3. Thread the balance tube cord through the front of the new clutch assembly and tie a knot on the back side. See figure 18. Pull the cord tight, keeping tension on the clutch assembly while carefully releasing the vise grip clamp from the cord. Ease the clutch into position to the bottom of the balance tube.

Figure 18

4. Follow steps 11 and 14–16 of the previous Balance Tube Replacement section.

REMOVING THE BOTTOM SASH

ABSTRACT: The following service guide will demonstrate how to remove the operating sash from an All Ultrex Double Hung unit (IFDH).

- Lift the sash 2–3″ (51–76), depress the tilt latches and tilt the sash to the interior until parallel.
- Lift the sash out of the clutches, rotate and remove from the frame. See figure 1.

Figure 1: Remove the bottom sash

SILL LINER REPLACEMENT

The following instructions will demonstrate how to replace the original sill liner (V1532) with the new style liner (V1552). However these instructions will work when swapping out new liners should they need replacing.

INCLUDED IN PACKAGE:

1 – V1552 Sill Liner
2 – Sill Liner End Gaskets

1. Remove the existing sill liner by rolling the liner away from the window and lifting, releasing the barb from the sill kerf. See figure 1.

Figure 1: Remove existing sill liner.

2. Fit the sill liner end gaskets on the ends of the sill liner as shown in figure 2.

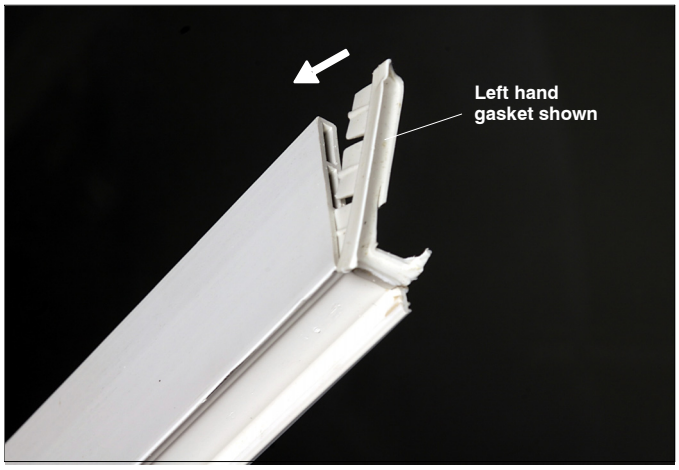


Figure 2: Install end gaskets.

YOU WILL NEED:

- Caulking Gun
- High Quality Sealant[1]
- Flexible Putty Knife

3. Place a drop of sealant in the corners of the sill kerf. See figure 3.

Figure 3: Add sealant to kerf corners.

4. Set new sill liner in place, pushing the barb on sill liner into the sill kerf. The end gasket should fit snugly against the jamb as shown in figure 4.

Figure 4: Set new liner in place.

[1]Sealant must be class NS 25 per ASTM C920

5. Seat the new liner using a block of wood and tapping with a hammer. Seat the liner the entire length of the sill, working from one corner to the other. See figure 5.

Use caution when seating the sill liner. Too much force could damage the liner and/or the sill itself.

Figure 5: Seat the sill liner in the sill kerf.

6. As a final step, slip a flexible putty knife between the jamb and sill liner gasket to make sure the lip on the gasket fits completely around the jamb. See figure 6.

Figure 6: Use putty knife to make sure lip on gasket surrounds jamb.